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|-------------------------------|-----------------|-----------------|--|
| <b>Notice of Allowability</b> | Application No. | Applicant(s)    |  |
|                               | 10/042,563      | BENTLEY, RONALD |  |
|                               | Examiner        | Art Unit        |  |
|                               | BINH K. TIEU    | 2643            |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/19/01.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Since dependent claim 11 can not depend on itself, therefore, the application has been amended as follows:

11. (Currently amended) A method for achieving a desired signal-to-noise ratio for a plurality of communication lines coupled with a plurality of line drivers in a communication system as recited in Claim 10 wherein said noise margin is predetermined based upon the number of communication lines included in said at least one communication line.

**(End of Amendment)**

### ***Allowable Subject Matter***

2. Claims 1-14 are allowed.
3. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to clearly teach or fairly suggest a method for training a plurality of line drivers in a communication system; each respective line driver of said plurality

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of line drivers being coupled with at least one respective communication line at at least one respective connection locus; each said at least one respective communication line being configured for communicating with respective subscriber equipment at a respective subscriber locus distal from said respective connection locus using at least one selected communication tone-set of a plurality of communication tone-sets; the method comprising the logic sequential steps from (a) through (k) as recited in the independent claim 1.

The prior art of record further fails to teach a method for training a line driver in a communication system; said line driver being coupled with at least one respective communication line at at least one respective connection locus; each said at least one respective communication line being configured for communicating with respective subscriber equipment at a respective subscriber locus distal from said respective connection locus using at least one selected communication tone-set of a plurality of communication tone-sets; the method comprising the logic sequential steps from (a) through (i) as recited in the independent claim 6.

Finally, the prior art of record further fails to teach a method for achieving a desired signal-to-noise ratio for a plurality of communication lines coupled with a plurality of line drivers in a communication system; each respective line driver of said plurality of line drivers being coupled with at least one respective communication line of said plurality of communication lines at at least one respective connection locus; each said at least one respective communication line being configured for communicating with respective subscriber equipment at a respective subscriber locus distal from said respective connection locus using at least one selected communication tone-set of a plurality of communication tone-sets; the method comprising the logic sequential steps from (a) through (k) as recited in the independent claim 10.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh K. Tieu whose telephone number is (571) 272-7510 and E-mail address: [BINH.TIEU@USPTO.GOV](mailto:BINH.TIEU@USPTO.GOV).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (571) 272-7499 and **IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (703) 306-0377 FOR THE SUBSTITUTIONS OR COPIES.**

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Or faxed to:

(571) 273-8300

Hand Carry Deliveries to:

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the FAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Date: November 23, 2005

BINH TIEU  
PRIMARY EXAMINER

A handwritten signature in dark ink, appearing to read 'Binh K. Tieu', is written over the printed name and title of the examiner.